

U.S. NAVY MEDICINE

March 1981



**The Navy and
the Homecoming**

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Learning Through Experience

Hands-on training is the best way to learn, but the medical department of the amphibious transport dock USS *Austin* (LPD-4) had its hands full during the ship's recent deployment to South America.

En route to a training exercise in Brazil, *Austin* made what was supposed to be a routine three-day port visit to the Caribbean island of Dominica. The island is slowly recovering from two major hurricanes, both of which occurred more than a year ago.

The 289-square-mile island, which has a population of about 70,000, has only eight doctors and limited medical facilities. The Dominican Department of Ministry asked LT Michael S. Miller, MC, *Austin's* medical officer, and his staff of six hospital corpsmen to conduct medical clinics during the ship's visit.

"We had less than 48 hours to prepare," stated Miller. "My corpsmen were really on top of things; they had a complete list of our supplies on board. We just estimated how much the ship would need for the remainder of the cruise, then took the excess with us into the field. The Department of Ministry provided our transportation and food."

The *Austin* medical personnel treated patients at a small hospital one day and a small clinic the next. Both the hospital and clinic are staffed by nurses and midwives, but a doctor had not been seen in that part of the island for two months.

The ship's medical staff was assisted by five more Navy hospital corpsmen from Marine Battalion Landing Team 3/2. Miller, accom-

panied by five corpsmen each day, went into the field and set up shop. The teams diagnosed and treated a wide range of medical problems from hypertension to meningitis, and even a case of leprosy.

"The leprosy we saw was so involved that there wasn't much we could do," said Miller. "We'd have had to amputate both of the man's feet. He couldn't survive without his feet."

For the *Austin* medical team, it was a hands-on study of tropical medicine. "I got firsthand experience on diseases I'd only read about in books," said HM2 Leon B. Johnson, the ship's operating room technician.

With the help of Dr. Miller, the population of Dominica was increased by one. "Normally the midwives and the nurses take care of the childbirths," he said. "However, in this particular case, the child was in fetal distress complicated by shoulder distocia. The midwives had given the mother a mild sedative, which they had been taught to do, but in this case it was the wrong thing to do. Luckily, both child and mother came through in good health."

After their experiences in Dominica, the men of *Austin's* medical department began to appreciate the medical facilities on board their ship.

"Dominica was really primitive medicine," said Petty Officer Johnson. "They treated supplies we take for granted like gold. After working on the island, it was really nice to come back to *Austin*."

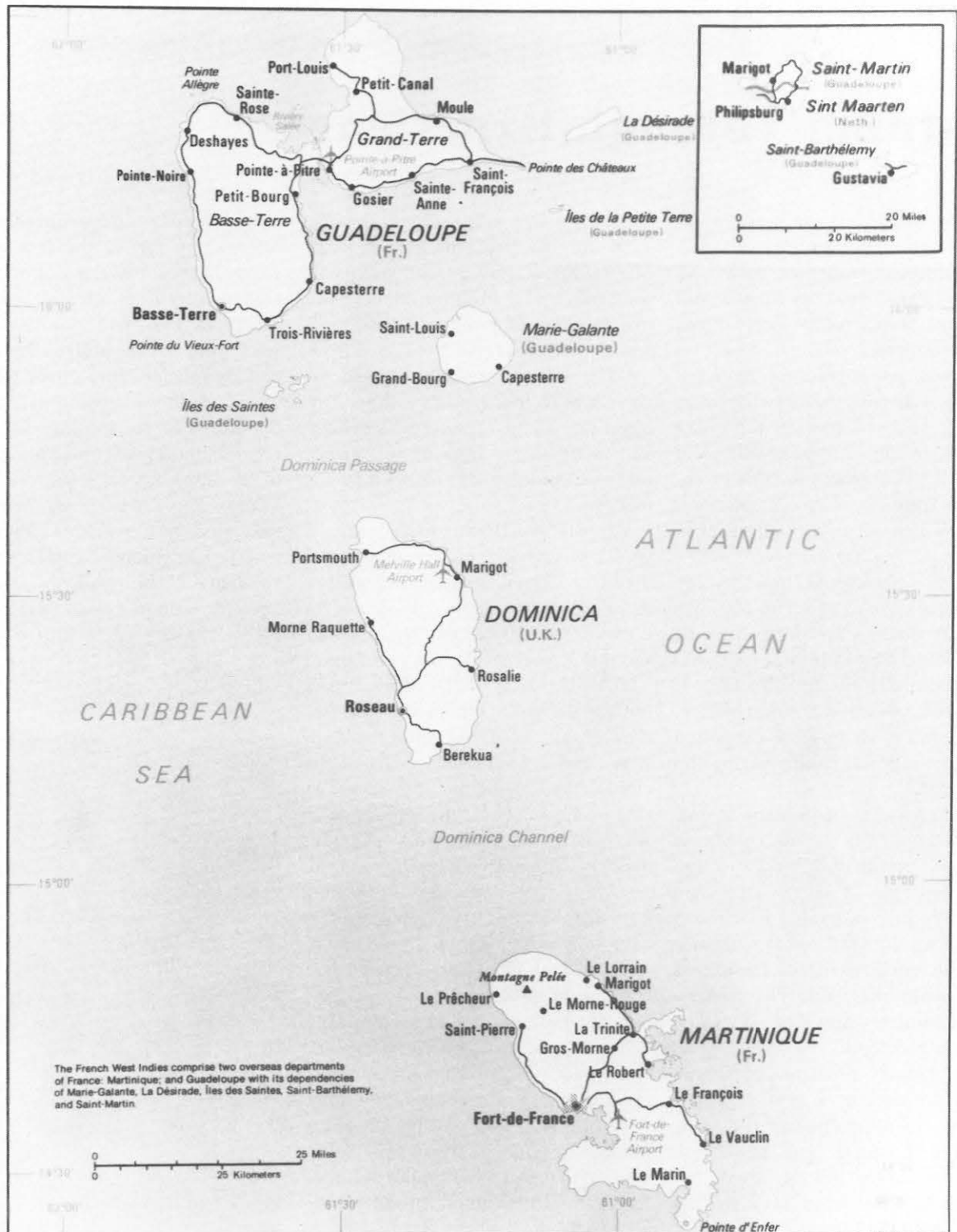
Before departing, the team gave the small hospital and clinic as many supplies as could be spared.

The medical department's skills were again put to the test when a young Marine was the victim of a hit-and-run accident on the island of Aruba in the Netherlands Antilles. According to Dr. Miller, the Marine had an open fracture of the tibia and fibula. With no surgeon available on the island to set the leg, Dr. Miller recommended that the ship proceed to the naval base at Roosevelt Roads, Puerto Rico, where an orthopedic specialist was available. While the ship was en route, complications developed. "The patient developed anterior compartment syndrome," Miller explained. "In this condition,

Photos by Raymon Alier



HM2 Johnson examines a patient on the Caribbean island of Dominica.



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Department of State



USS Austin



Dr. Miller examines a Dominican child.

pressure builds up in the leg and cuts off blood to the muscle. If the pressure is not relieved, the muscle will die."

The doctor decided to operate immediately. Miller performed the operation assisted by his corpsmen. *Austin's* dental officer, LT Christopher C. Leclair, acted as anesthetist. "This was the first time I'd ever operated without a surgeon to help me and also the first time I'd operated at sea," Miller said.

The operation was successfully completed and the leg was packed. When the ship arrived in Roosevelt Roads, Miller accompanied his patient to the naval hospital, where he assisted an orthopedic surgeon in setting the leg.

For Dr. Miller, who was on his first cruise after interning at NNMC Bethesda, MD, the experience was invaluable. "As a medical officer on a ship you learn how much you can really do," he said. "You rely on your corpsmen and they learn more about their jobs because they have more responsibilities on a ship. The corpsmen on *Austin* are some of the best I've ever worked with."

Proof of Miller's own abilities can be seen in the Navy Achievement Medal he earned for his work on Dominica. In the opinion of the ship's commanding officer, CAPT Frederick R. Sabine, *Austin* has the best medical department afloat. The people of Dominica would probably agree.

—Story by Brady J. Bautch

□

The Impact of Separation and Divorce on Children

CDR Eli Breger, MC, USNR

"By the legal fiction of divorce, marriages become a relation dissoluble at will." Brooks Adams

In a world where the divorce rate has climbed to staggering proportions, its effect upon the developing child cannot be overemphasized. If a separating couple is childless, the marital failure with its many implications and consequences is personal to themselves. When children are involved, as is the case in 70 percent of divorcing couples, there are very considerable consequences to the evolution of family and society. Marital conflict, separation, and divorce are at minimum deeply disturbing to children and maximally highly traumatic. They create a core of disintegrative trends in the family which are forerunners of disturbed emotional development in the offspring. The implications carry such severity and magnitude that couples contemplating separation should pay heed to them, seriously consider the plight of their children, and make very sincere and sustained efforts to work through the marital difficulties. Divorce, however, may be the only solution. To remain together, alienated from

one another and out of love, or because of economic need, personal dependency, fear of loneliness, or concern about the consequences on the children, leads only to an "emotional divorce" which also has serious effects on a child's personality development. In truth there is no consummate divorce for parents. Though divided as a sexual couple, they remain permanently tied by the continuing joint responsibilities for care of their children. To meaningfully understand the impact of separation and divorce on children, it is helpful first to explore why couples marry and why they divorce.

Strong Compatible Marriages

An individual's decision to marry and his selection of a partner reflects the merging of many motives, some within the realm of awareness and others unconscious. Falling in love and finding oneself deeply and physically attracted is obviously a central motive. The opportunity to establish emotional security and stability plays a role. Advancing to that next step in life is something we look forward to and expect to do. It gives us a sense of prestige and accomplishment, a buffer against the vicissitudes of loneliness in adult life and the opportunity to perpetuate ourselves into the future through offspring.

Choice of a marital partner tends to be practical and realistic even in the act of falling in love. "Love is not blind." Common sense usually

prevails. One tends to choose an individual of similar social class and values who is likely to counteract one's own anxiety and insecurity. There is the unconscious expectation that marriage may bring a cure for one's psychic discomfort. Indeed, if one's weaknesses are complemented by strengths in similar areas in one's mate, the partnership can prove practical and workable by mutually fulfilling needs and creating a fertile terrain for the development of offspring. Wedded couples most often become parents and the problems of shared parental responsibilities add complexity to family relationships. Strong, compatible marriages tend to be strengthened but conflict increases where discord already existed.

Children of successful marriages are indeed fortunate to have excellent preparation for their own future successful marriages. What greater positive force can there be beyond seeing one's own parents relate closely, lovingly, and in a unified manner. Such patterns are observed and imprinted quite early in children's lives. More often than not they seek a mate much like their parent of the opposite sex who represents a "romantic ideal." Married offspring tend to relate to their spouses and handle life's problems similarly to what they observed in their formative years. This they learn through gradual unconscious imprinting. It follows that parents have an immense responsibility to provide their children with

Dr. Breger is Chief of the Psychiatry Service at the Naval Hospital, Beaufort, SC 29902. Copyright 1981 Eli Breger, M.D. All rights reserved. May be reprinted or reproduced within the Navy for nonprofit educational purposes in keeping with the fair use doctrine.

an emotionally strengthening experience. This includes insistence on moral and ethical standards for conduct for themselves and their children. It involves demonstrating strong adaptability and commitment to working through family problems. What greater legacy can we pass on? Hard as one tries, a marriage may not achieve the ideal. Fortunately, children often forgive faults and place more emphasis on strengths. Tensions and quarrels are natural within moderation. They are constructive if there is a seeking of mutual understanding and if the marital relationship is generally characterized by visible affection and emotional support for one another.

Why Couples Divorce

Frequently, marriages do not become working partnerships. Mutual fulfillment does not evolve. Reciprocal strengths and weaknesses do not establish a mutual juxtaposition and emotional alienation sets in. Marital failures have many roots. Some were established early, reflecting weak and negative marital messages and images perceived while growing up in a home where marriage failed. An individual may be immature upon marrying. He may not know himself sufficiently to judge what he needs in a mate. He may not be experienced enough to assess what his partner has to offer. Marriages without adequate periods of courtship do not allow individuals to get to know one another sufficiently. Marital partners continue to grow after marriage and, if one matures far more rapidly and completely than the other, a situation may develop where two individuals are no longer as compatible as they were at the time of marriage.

The times we live in have created stressful burdens for attaining marital stability. There is steady questioning of values, rapid changes in morality, and confusion about the aims, expectations, and

goals of marriage. There was a time, not long ago, when the overriding emphasis in a marriage was the attainment of security and survival. In these more affluent times the emphasis has shifted to a different order with less clearly defined goals involving intensity of love, sexual compatibility, and companionship. Husband and wife often assume these areas will emerge spontaneously and early within the marriage. When they do not, an egotistical wound develops suggesting the other partner is not making him happy. Strength, commitment, and time is required to reach these goals. To recognize that they may be only relatively obtainable is unacceptable to many young partners in today's world. Undoubtedly, much marital breakdown could be prevented were there a truer commitment to the message within the marital vows.

The Consequences of Marital Discord

The effects of parental separation and divorce on children are better understood after studying the impact of marital discord upon the developing child. The process of growth and development is quite complex and truly difficult. Along the way, there are crucial developmental tasks difficult for a child to work through. They are hazardous because successful resolution does not automatically occur. There is substantial potential for fixation with resultant emotional disturbance. The stresses of marital discord increase this risk.

An anxious and unhappily married mother is often a poor partner in the important relationship with her child. She tends to be limited in her ability to relate closely and offer love, physical affection, and empathy. An unsatisfactory early period of mother-child unity may give rise to arrested development in the infant with clinical symptoms emerging such as eating and sleep-

ing disturbances. Further on along the road when the baby is about 18 months of age, mother works on toilet training and other socialization demands. If the child senses in her mother tension and lack of a calm, consistent, negotiating attitude, she is prone to respond with negativism and resistance.

Toward the beginning of school age a child's sexual identification with the parent of the same sex is impaired should he perceive that parent as disliked and criticized by the other. During her formative years, the child incorporates part images and identifications of her parents, weaving them together into her own personality. As she gets older she may be thrown into deep, inner conflict because she cannot successfully integrate her internal identifications into a harmonious and self-accepting whole because her parental images are imbued with conflict, criticism, and hostility.

Discord itself does not invariably lead to childhood disturbance but it clearly increases the risk. Even when a child remains stable there is increased risk of neurotic symptom formation in adult life. As the child's problems emerge, they are likely to feed into the marital discord and intensify it. In turn, this diminishes parental ability to respond to the child who is reaching out for love. Marital discord involves parents and children, and this family drama is held together by a tenuous balance into which the child becomes locked and assumes certain roles. He may become the focus of displaced hostility and amenable to sacrifice as a "pawn." His parents find it less painful to view him as the problem than their own relationship. He may assume the task of a "cement" of the relationship by urging his parents to negotiate and conciliate their differences. He may become a "buffer" knowing that when he is around, they will not argue in front

of him. He may be enlisted by a parent as a "confidant" beyond his immature ego's ability to fully understand. Emotional damage to the child by lengthy and recurrent violent scenes between his parents is obvious. The frequent reconciliations followed by revival of discord tends to be perplexing and threatening. Protracted, subtle, and repressed hostility with its imminent threat of separation is very difficult for a child to cope with. It is not out in the open and leads to a situation where there is a mutual non-expressed pact not to think or talk about the problem at hand.

The Impact of Parental Separation

How does the harsh reality of parental separation affect the child? Much depends on the child's strength or vulnerability which reflects constitutional factors as well as life experiences. A separation is viewed by the child as a major "loss." From birth, a child experiences and responds to losses of various types and severities. It might be the loss of a pet, the moving away of a playmate, or the death of a family member. He will develop a coping capacity and style based on his own inner resources and how he sees adults around him respond to losses. We often see a child respond to seemingly small losses with catastrophic reaction and, on the other hand, to major losses with stoic acceptance. His inherent feeling and response will be that of a deep, psychic pain. He will attempt to defend himself against this, mute its force, and deal with it tolerably. Invariably, the child feels rejection and abandonment. He perceives the separation as evidence that his parents did not really care for him as much as they had said. His self-centeredness leads him to conclude they should not have done this without his permission. In young school age children, it is as if their Rock of Gibraltar—their anchor—has disappeared. They were in the process

of gaining self-esteem, confidence, and greater coping skills in relating to peers. All of this now feels threatened and perhaps shattered.

Even when the marriage had been troubled and filled with discord and the resulting separation leads to greater harmony, the young child invariably prefers the troubled marriage. The child approaching adolescence is deeply threatened in his confidence to attain a comfortable sexual role and a successful separation and individuation from his parents. A growing child views his parents as omnipotent and this is necessary for his own identification and emotional strength. As he matures, it is normal to gradually lessen this perfectionist view which may be referred to as "normal disillusion." Little by little he begins to view his parents in a more objective light. Parental separation adds a sudden shattering reality to this disillusionment and leads the emerging adolescent to exaggeratedly conclude his parents are not worth much at all. Such disillusionment may persist becoming a permanent part of one's psychological view. Not infrequently, a child holds himself responsible for the separation even after he is assured to the contrary. A young child tends to be primitive and simplistic in his thinking and will often equate something going wrong in his life as a punitive response to bad behavior on his part.

Understandably, the emotional impact is reflected in behavioral reactions. There are no typical, consistent behavioral reactions in response to separation and divorce. Much depends on the individual personality makeup of the child and the particular circumstances of the family dynamics. Much will depend on the age of the child at the time of separation. Young children are closely involved with their parents and have less of a life outside the home. They appear to be hit hardest and demonstrate an emotional re-

sponse immediately and demonstratively. Their ability to conceptualize what has happened is poor, but their ability to forget is good. These children tend to become disorganized and immobilized. Anxiety may run rampant; they appear perplexed and seek coherence trying to bring some order to the turmoil. More specifically, they may become negativistic, resist toilet training and other socialization demands, show sleep disturbance, and, if of school age, show learning problems.

Adolescents have a greater degree of individuation, availability of peers in whom to confide, and a better ability to conceptualize more maturely. They may show a lesser outward reaction although the impact on their adolescent process and future development may be even greater than for the younger child. They are more prone to breakdown with socially inappropriate behavior since they are of an age where the development of their conscience still lacks finishing touches.

Whereas some children will have a strong need to talk actively and in other ways deal with the trauma, others tend to respond through denial, avoidance of the issue, and distancing themselves from their loved ones. Frequently, a child will attempt to reunite his parents in spite of the reality of a discordant marriage. His means of attacking the problem are almost unlimited and frequently reported in his dreams and seen in his play. The notion that divorce is better for a child than marital disharmony is only rarely accepted by the child. As his attempts at reconciliation fail, he may resort to angry, disrespectful behavior toward the parent with whom he remains such that it becomes difficult for this parent to socialize anew. He will not be adverse to inducing guilt in that parent who very often behaves like an adolescent with impulsive premature dating.

The child's attitude toward the parent who leaves the home can go in two directions. He may extoll the virtue of that parent in spite of what he realistically experienced. He may angrily criticize and diminish his virtues out of vengeance or mutual realignment with the remaining parent. The child frequently regresses to a more dependent position and will often shadow his parent. Older school age children and early adolescents prematurely indulge in advanced behavior as a defense against closeness and its potential loss. Phobic behavior is common because children feel forgotten and abandoned. They sense they are a burden to the parent with whom they reside.

Let it not be forgotten. Many children of divorced parents respond with mature adaption, strengthening of their egos, intellectually sound conceptualization of what took place, and a gradual, true emotional acceptance.

Suggestions for Softening the Blow

How may one best help his child deal with the impending breakup of the marriage? One must aim for a "good divorce." Although good divorces are not good, they are better than bad ones. Although not in the immediate best interests of the child, hopefully it will work out well for the longer view. To accomplish this, one must act intelligently and restrain hostility and quarrels wherever possible. Children should not be pulled in as confidants by one parent against the other or by the sharing of the parental burden. It is essential for parents to treat one another supportively and not to stress one another's faults. The child should be informed of the separation prior to its actualization. Indicate a separation will take place because of different views and personalities of the parents. Emphasize that efforts were made to pull together and conciliate differences but without success. Stress that

neither parent is to blame and certainly none of the children are to blame. Reassure them they will always have both parents' love and that each will still be their parent even though living apart. At such times it is difficult for children to respond and ventilate feelings because of the shock, but parents must continue to encourage ventilation and expression. It is even appropriate to ask children their opinions about what should be done even though the decision remains in parental hands. Open communication and ventilation is probably the best protection against disturbed adjustment.

Separation leads to the next step of establishing visitation privileges and custody rights. Once again there is potential for helping or harming the children. Arrangements should be made based on traditional considerations and common sense rather than vindictive retaliation or as a means of handling guilt. The cornerstones of such decisions should be the age of the child, the parent to whom he is obviously emotionally more tied, and his needs for care and nurturance. Precisely because the parents are apart there is greater need to communicate around issues pertaining to the child. Parental meetings to discuss matters and to meet in unison with the child are vital. It is essential not to criticize the departed parent, not to pry about the child's visit with that parent and not to misinterpret the quality of that visit should the child return overly stimulated as frequently occurs. Most often, each visit is being felt by the child as a reenactment of the original separation. Continue to show respect for one another and stress the positive aspects of the other parent and his relationship with the child. There is an almost universal tendency for parents to feel guilty about breaking up a marriage and to handle this guilt by minimizing one's own role through

criticism of the other.

Assuming a young child remains with his mother, sooner or later she is faced with the question of reestablishing a social life of her own. It is wise counsel to defend oneself against an early propulsion into shallow relationships to prove one's attractiveness. It is best to let a period of several months pass during which time the child can mourn his loss and make adjustment to it. It is truly not respectful to the child to date soon. It may be wise initially to meet one's date away from the home. When the relationship becomes serious or repetitive, inform the child and prepare him. One should anticipate jealousy because the new relationship may open up old conflicts regarding loyalties. It will be threatening to a male child who has become especially close to his mother following the separation. Children's comments should be encouraged and dealt with maturely. A child's early reaction to his mother's dating may or may not forecast the future. Initial negative reaction may yield as the child gains familiarity and recognizes that his rational needs for a readily available father figure might be met should the relationship become permanent. It is best, however, not to talk of marriage until it is certain. A young child living with his mother will be far more aware of her social life and assume his father is not dating even though this might not be the case. It is important for both parents to share the truth lest the children view one as loyal to the old relationship and the other as disloyal.

Dilemma of the One-Parent Family

The problems and difficulties of parenting in a one-parent family can be enormous. A mother feels she must be a mother and a father to her child. In this she cannot succeed and it is best not to attempt it. Hopefully, the child will have contact with his other parent. If this

is not the case, he will create a father figure for himself. He will patch together identifications of the past coupled with current identifications with adults out of the family. This thrust can be enhanced by relationships with uncles, neighbors, and the Big Brother organization. Marriage primarily to provide a father for one's children should be discouraged. When marriage involves two sets of children coming to live together there is need to blend and constitute a new family amalgam. This has a very high potential for disruption. Parents are advised not to idealize the prospects

nor minimize the difficulties. One is not merely bringing two partial families together. There remain the memories and life experiences of the past involving separated spouses, grandparents, in-laws, neighborhoods, schools, and old friends. Children inheriting a new father figure will compare him with their biologic father whom they invariably will idealize particularly when limits are being set or they are being disciplined. A major problem for parents is to establish criteria for what comes first—old ties, loyalties, and activities or a primary commitment to the new family. This latter

commitment, if well understood by all involved, has better potential for an eventually positive outcome.

The disruptive impact of separation and divorce can be buffered. It should be discussed early and planned for. Emotional dislocation in children should be expected and dealt with openly and maturely. In addition, if one has a hopeful outlook and is prepared to give it much time, there is every hope things will come together and fly right.

"Love, the quest; marriage, the conquest; divorce, the inquest."
Helen Rowland □

Submarine Escape Training Tank Facility Receives Meritorious Unit Commendation

Since 1957 nearly 500 persons have received hyperbaric treatment at the Submarine Escape Training Tank (SETT), Naval Submarine Training Center Pacific, Pearl Harbor, HI, for decompression sickness or gas embolism from diving. The period from 1977 to 1979 accounted for 180 of these treatments, 90 percent of which (160) have been classified as civilian humanitarian.

Traditionally, hyperbaric facilities treating diving diseases see 90 percent "pain only" (Type I) and 10 percent "serious symptom" (Type II) or "gas embolism." In contrast, at the SETT 60 percent "serious symptom," 10 percent "gas embolism," and only 30 percent "pain only" are treated. These patients present with severe disabilities such as paraplegia, quadriplegia, hemiplegia, blindness, deafness, loss of bladder and bowel function, and other equally grave conditions. Despite the critical nature of 70 percent of the cases, a most highly acceptable 83 percent complete recovery rate

has been accomplished. This is a most creditable reflection of the devotion, dedication, perseverance, and humanitarian spirit of the "Bends Watch" staff.

The "Bends Watch" staff is on 30-minute call, 24 hours a day, 365 days per year and to the man has responded day or night reliably without exception. No billets are assigned to fulfill this responsibility. Naval Submarine Training Center Pacific diving school instructors meet most of these requirements. Many of the personnel are either Additional Duty Under Instruction or volunteers and have commendably provided professional services without compromising their primary duty. Typically, dysbarism cases present at night, weekends, holidays, or some other off-duty time.

Over 9,000 man-hours have been logged from 1977 to 1979 in providing "in-chamber" recompression treatment. When considering "out of chamber" time including preparation of facilities, pre- and post-treatment evalua-

tions, examination of patients not treated, etc., an estimated 14,000 man-hours have been expended. Countless hours donated by staff members in the medical and safety education of the civilian diving community are not included in this figure.

The attendance of afflicted divers in the recompression chamber is not without inherent hazards. One physician and two diving medical technicians have suffered decompression sickness in performance of this humanitarian service.

Patients treated have ranged in age from 10 to 60, the majority in the 20-30 range. It is estimated that for each young person permanently disabled, the cost to the State of Hawaii is at least one-half million dollars. The economic benefit to the community in the return of 83 percent to productive lives requires no further comment.

The meritorious Unit Citation was awarded for the period 1 Jan 1977 to 31 July 1980.

MSC Survey Results

Junior MSC Officer Attitudes Toward Operational Assignments

LCDR P.T. Bruder, MSC, USN

LT M.C. Butler, MSC, USN

LT W.W. Knox, MSC, USN

This is the second in a series of articles dealing with the Medical Service Corps survey conducted in late April and early May 1980.

Among the more challenging tasks confronting career planners, counselors, and detailers for MSC officers is that of determining when in a career, and for which officers, an assignment with Navy or Marine Corps operational forces would be most appropriate. Formal billet requirements set certain boundaries in officer grade and specialty (NOBC). Nevertheless, short of contingency requirements, the number of operational billets for officers is less than the number of officers eligible at any one time for such assignment.

This article addresses the matter of operational assignments as they affect the junior officer. Although essential billets in operational units for middle and senior grade officers exist, the attitudes, knowledge of the organization, and skill development training for operational duty must begin at the junior officer level. To know how our junior officers regard such duty is important for career development planning and counseling.

The questions asked of our junior officers in the survey were as follows:

“Although most Medical Depart-

ment officers serve at shore-based medical facilities, the Navy also has requirements for deployment with the operating forces (e.g., duty aboard ship, with the Fleet Marine Force, etc.).

- To what extent do you look forward to such duty?
- How do other officers of your specialty regard such duty?
- At what point in your career do you feel such an assignment would be most fitting?”

Independent raters categorized responses to these open-end questions into positive, negative, and neutral categories of affect for subsequent analysis in relation to officer characteristics.

Attitudes Toward Operational Assignments

Although most of our junior officers (68 percent) who ventured an opinion felt their contemporaries did not look forward to operational duties (though most would probably add that their peers “would go if really needed”), they were considerably more positive about their own inclinations toward such duty. Among the 625 junior officers responding, only one third (32 percent) frankly stated that they did not look forward to operational duty. This does not imply that such officers would not serve in such capacity, but that they were not enthusiastic about doing so. Another third of the officers (33 percent) stated a definite interest in operational assignments for themselves (i.e., they did look forward to such duty, *even if there were no present billets* for officers of their specialty).

Again, only 11 percent of the junior officers felt that peers of their professional specialty definitely looked forward to the same. The remainder of the officers responded in neutral or guarded terms, examples being: “I would go if needed, but would not necessarily volunteer”; “there are no operational billets in my specialty” etc. The junior officers, in other words, were more likely to express positive attitudes toward operational duty for themselves than they thought existed among their contemporaries.

The variation of response among junior officers suggests a good potential for counseling. Many perhaps misunderstand or simply lack information about operational assignments. Others perhaps follow the lead of their professional peers, but misread their peers’ orientation toward operational duty. Some evidence of this is illustrated in the discrepancy between what junior officers report as their own attitude toward operational assignments and the attitudes they perceive others of their professional specialty to hold.

Timing of Operational Assignments

When in their careers did the junior officers consider an operational assignment most appropriate? Nearly two-thirds (65 percent) favored such assignment early in their careers, mostly in the ensign-lieutenant range, within the first three tours. Another five percent responded “anytime” or “periodically over an entire career.” This response is realistic with actual likelihood of assignments, since about 90 percent

LCDR Bruder is the Head, Research Department, Naval School of Health Sciences (NSHS), Bethesda, MD 20014. LT Butler is a research psychologist at the Naval Health Research Center, San Diego, CA 92138. LT Knox is on the staff of the Naval School of Health Sciences, Bethesda, MD.

TABLE 1. Characteristics of Officers with Positive Attitude Toward Operational Assignments*

Officer Characteristics	Number of Officers	% Positive Attitude Toward Operational Duty
Professional Specialty Area**		
• Science	126	56%
• Administration	156	51%
• Clinical	75	32%
Educational Level		
• Bachelors	95	61%
• Masters	184	48%
• Doctorate	85	23%
Family Dependents		
• One or more	218	51%
• None	128	37%
Family Support†		
• High	195	58%
• Moderate	72	36%
• Low	91	26%
Career Intent		
• Intend to remain	259	52%
• Not sure	46	36%
• Intend to leave	58	24%

*Sample size in this analysis varies from 357 to 364 due to incomplete information on some of the survey questions. Though results are expressed in terms of percentages, chi square analysis was conducted of frequencies by officer characteristic and (pro or con) attitude toward operational assignment. Differences observed between categories of officers are statistically significant at or beyond the .01 level for all officer characteristics listed.

**Science specialties include aerospace physiology, aerospace psychology, biochemistry/toxicology, entomology, environmental health, industrial hygiene, microbiology/parasitology/virology, pharmacology, radiation health, research physiology and research psychology. Clinical specialties are audiology, clinical psychology, clinical social work, dietetics, medical technology, optometry, occupational therapy, pharmacy, physical therapy, podiatry, and radiation specialty. Administration refers to health care administration specialties.

†Family support refers to the degree the officer feels his or her spouse, parent, or significant other family person supports that officer's naval service.

ated relative to officer background, professional specialty area, family status, and career motivation. Only those officers who had expressed the most positive and negative feelings about operational assignments were compared in this instance. Table 1 summarizes those data.

The junior officer most enthusiastic about operational assignment is by professional specialty most likely to be selected from the spectrum of health care administration and health science fields for which operational billet requirements exist. Educational level in relation to attitude reflects in part the professional specialty orientation of our officers, the greatest proportion of doctorates being in the clinical fields. This may also suggest that officers with less specialization achieved through graduate education perceive the opportunities of a naval career in a different way from those more specialized. A later article in this series will address in more detail the issue of professional specialization.

The emphasis on family support in the naval service is well placed in perspective of the junior officer. Contrary to what some might believe, it is not necessarily the individual free of dependents, or having a family indifferent to one's service career, who most looks forward to sea duty or a tour with the Fleet Marine Force. Rather, officers with family responsibilities and family support of their naval career appear most enthusiastic. More likely, they are also inclined to favor a Navy career, in which there is a positive attitude toward operational assignments. Among officers with former enlisted experience this is especially so, although not exclusively.

In summary, those junior officers and their families who appear most challenged by the prospects of a naval career, especially those in professions routinely required in direct support of the operational forces, seem inclined as well to have a more positive attitude toward an opera-

of the Navy and Marine Corps operational billets for MSC officers are designated for the rank of lieutenant or below. Due to the limited billets for senior officers, relatively few of the officers have several operational

tours periodically distributed over their careers.

Characteristics Related to Attitudes

In the final analysis, attitudes toward operational duty were evalu-

tional tour early in their careers. Even among those for whom limited opportunities currently exist in operational units, there are many with strong positive attitudes toward such duty. Women MSC officers, over half (57 percent) of whom in this survey

sample had positive attitudes toward operational duty, are a case in point. The officer's motivation for being in the service, his or her personal and professional self-concept and aspirations, and the officer's perceived success in career pursuits are all un-

doubtedly important as a basis for attitudes. These differences can be the substance for discussion with families, peers, and your seniors as you work through your career development plans. They will also be the substance of future articles. □

I am delighted by the participation of MSC officers in the career interest and attitude survey conducted by LCDR Paul Bruder and LT Mark Butler. Your interest, enthusiasm, and frankness, are heartening. As we plan together to meet the individual needs of officers while also satisfying requirements of the organization, the data and insights derived from our survey will be useful as management resources, not only at headquarters but at the local command, as well. I encourage discussion of this series of articles summarizing major results of the MSC survey.

Following the introductory article appearing in *U.S. Navy Medicine*, February 1981, it seemed important that the series of reports from the survey begin with our relationship with the operational forces we support. That is our *raison d'être*—our top mission in the Navy Medical Department.

As a staff corps of more than 30 clinical, scientific, and administrative specialties, it is easy for many to lose sight of our real purpose in the naval service. This has been stated succinctly by others to the effect that "whether a corps is successful or not must ultimately be measured not in what it has done for its members, but in the effectiveness and efficiency of the systems it supports" (*The Navy Supply Corps Newsletter*, July 1979, p 6).

Our support of the Navy and Marine Corps operational forces begins with an understanding of the Medical Department mission

and an appreciation for the various ways in which we as MSC officers have opportunity, professional challenge, and responsibility to serve as part of a great team in carrying out that mission. Our support begins with an attitude of professionalism, pride, and commitment to serve. This base of knowledge and attitude essential to our service must be common to all officers, men and women alike, across all professional specialties.

For those officers who are needed to directly support our forces at sea or serve with the Fleet Marine Force, the numbers of billets are not great. They are essential billets, however, and those officers being assigned are second to none. In addition, to improve the training of our officers for such duty, we sought and achieved during the past year an increase in authorization for MSC officers to attend distinguished service colleges and schools dedicated to Navy, Marine Corps, and joint service operations (see *Perspective: a Newsletter for Navy Officers*, January/February 1981). Officers are selected for those training opportunities by official boards not altogether unlike those convened for augmentation and promotion of our officers. In other words, performance counts!

For those who by specialty or other reason do not have the opportunity to serve directly with the operational forces, there are other opportunities to "meet the fleet." Our overseas health care and logistics support activities, En-

vironmental and Preventive Medicine Units, and even our medical research activities afford a special avenue for support to our operational forces. Within CONUS, too, all Medical Department activities from those in major fleet locations or Marine Corps bases, to the less well known, provide an opportunity for each of us to better understand and contribute to our mission in support of the operational forces. Many of our officers ashore also serve in Navy and Marine Corps technical or headquarters support commands from which a first-hand knowledge of our mission can be experienced. In all assignments, attitude and initiative of the officers are every bit as important, if not more so, than the nature of the billet, in the conduct of our Medical Department mission.

What we have, then, are echelons of support to the operational forces, some direct and immediate, others indirect and of longer term potential. In whatever assignment we assume, the opportunity and challenge before us requires, again, an attitude of professionalism, pride, and commitment to serve. That attitude must be developed in our earliest years of service. For that reason, the present article on the attitudes of our junior officers toward operational assignments is so important—and seemingly such a logical starting point in our series of MSC survey results.

P.D. Nelson
Captain, MSC, USN



Soviet Naval Medicine

CAPT R. Paul Caudill, Jr., MC, USN

Anesthesia

Part seven in a continuing series

Soviet military medical authors have acknowledged the difficulties inherent in surgical anesthesia at sea. In general, older literature suggested that it was rare for general anesthesia to be used. This was related in part to the absence of individuals trained to administer general anesthesia. The ship's surgeon could not do both anesthesia and technically difficult procedures simultaneously. However, the surgeon was held responsible for competent technique, reliable judgment, and good results.

Anesthesia administered aboard ship must provide, according to one author:

- adequate anesthesia
- ease of administration
- safety of the patient
- ease of control during administration
- good relaxation
- controllable depth of anesthesia
- absence of adverse systematic effects (2)

Dr. Caudill is Commanding Officer of the Naval Aerospace Medical Institute, Pensacola, FL 32508.

A 1972 article reviewed 1,000 cases of surgery at sea (3) in which several methods of anesthesia were utilized. In 99.5 percent of cases, local anesthesia was used. In 0.5 percent of cases, general anesthesia was used. The general anesthesia cases were done only on surface ships and in floating bases.

Failure of local anesthesia at sea was found to be related to a number of factors:

- loss of skills gained during specialization by lack of exercise of those skills at sea
- lack of qualified assistants
- cramped quarters with an unfavorable microclimate
- bad weather
- emotions and motion sickness
- Lengthy procedures in difficult cases, such as some appendectomies
 - 162 appendectomies (60 percent) were completed in one to two hours
 - 31 appendectomies (11.5 percent) were completed in two to three hours
 - 12 appendectomies (4.4 percent) were completed in more than three hours

The appendix was not located in five of the cases reviewed. The incisions were closed, the patients

evacuated or transferred and subsequently reoperated. The explanation was anesthetic inadequacy contributing to inadequate examination of the abdominal cavity. (4)

Most authors emphasized problems with anesthesia administration at sea. Difficulties included problems inherent in the anesthetic agent, problems related to skill levels of personnel administering the anesthetics, and the environment in which the anesthetic adventure was to take place.

Dudochkin commented on difficulties of surgical anesthesia at sea, both in surface and submarine vessels.

- most anesthesia had to be local
- general could not be used at will
- the surgeon was often the anesthesiologist also, supervising all activities related to the surgery
- the environment of ships was often unfavorable
 - a. rolling, pitching motion
 - b. hostile microclimate within the ship (5)

Luschitskiy, Porembskiy, and Grinev wrote of difficulties of surgery aboard submarines. (6) They stated that difficult appendectomies re-

quired more than local anesthetic. They recommended a right perinephric novocaine block by the method of A.V. Vishnevskiy,* stating that the method gave good results in 95.8 percent of cases. However, there was criticism of Vishnevskiy's method. Dudochkin, in 1976, noted that the Vishnevskiy method was sometimes "ineffectual," resulting in incompleting surgery requiring transfer of patients to sites where general anesthesia was available. (7)

What were the anesthetic methods? In 1972, a series of 78 surgical cases were reported. In those cases, dihydrobenzperidol and fentanyl had been used in a variety of ways.

- Eight cases were accomplished with neuroleptanalgesia alone.
- Twenty-three cases were combined with gaseous anesthesia (type of gas and scene of surgery not described).
- Thirty-seven cases were done in combination with local anesthesia.

As a result of that experience, the author recommended neuroleptanalgesia as a component of combined anesthesia. Factors combined included psychological preparation of the patient, premedication, neuroleptanalgesia, and local anesthetics, with atropine administered preoperatively. (8)

Shortcomings of neuroleptanalgesia were said to include respiratory depression in cases of excess doses and patient sensitivity. Such complications were thought to easily be controlled by an anesthetist in a hospital setting; but at sea, complications were a real problem. Therefore, the author recommended small, fractional dose administration with meticulous monitoring of the patient. (9)

Whatever the problem encountered, Dudochkin was impressed with the method. "One advantage of

neuroleptanalgesia is that any surgeon can administer it." The method "deserves attention and study" for use on ships. (10)

Local anesthesia use was advised as the first-line anesthetic tool. Smirnov felt that the anesthesia of choice, aboard submarines, was that of local infiltration. (11)

A number of authors recommended the right perinephric novocaine block, by the method of A.V. Vishnevskiy, for appendectomies. Vishnevskiy's method had been used by the S.M. Kirov Military Medical Academy in 200 cases of acute appendicitis. Results were favorable, and the method had been recommended for submarine physicians. However, the importance of premedication was emphasized. It was recommended that two hours before the block, the patient be given a long-acting barbiturate orally, followed by a short-acting barbiturate and diphenhydramine 40 minutes before the administration of the block itself. (12) Again, there was emphasis on Dudochkin's caution concerning the occasional "ineffectual" effect of the block and the resulting necessity of transfer of patients.

A bilateral perinephric novocaine blockade by the method of A.V. Vishnevskiy was recommended for use in cases in which acute ileus was suspected and a siphon enema was to be accomplished. (14)

"Modern methods of combined anesthesia" were felt to be essential as subjects of training for Soviet naval physicians, particularly for submarines. (15) Methods of combined anesthesia included morphine and scopolamine, advocated as basic anesthetic agents. The combination of intravenous alcohol and thiopental was another combination. The alcohol-thiopental combination was said to be complicated by occasional problems with airway and laryngospasm and by toxicity in overdose. (16)

A form of inhalation anesthesia used in combinations aboard ship was the "Tringal portable inhaler."

The device was said to have been used aboard certain ships utilizing trilene as an additional means of anesthesia during operations under local anesthesia. (17)

Another anesthetic combination discussed was neuroleptanalgesia and local. Shevchenko, Buryan, and Grigor'yev preferred neuroleptanalgesia plus local anesthetic for use aboard surface and submarine vessels. The preferred drugs were droperidol and phentanyl. The authors discussed a hospital trial of 30 patients with multiple agents. The "explosion proof" aspect of the method was attractive to them. They felt that neuroleptanesthesia, combined with local anesthesia in the method of A.V. Vishnevskiy best met the requirement for anesthesia in shipboard operations. (18)

A number of articles on surgery at sea alluded to general anesthesia, but little of a specific nature was said in most of them. The general concern lay in the skills of those who might be called upon to administer the anesthetic.

Aboard frontline surface ships, surgery was performed under an ether-oxygen anesthesia mask. It was considered appropriate that teams of two or even three physicians be brought from ships in company, or from the reserve group, in order to carry out the procedure, and to have adequate skilled personnel to administer the general anesthesia. (19)

Whatever the type of anesthesia chosen by medical personnel afloat, training of personnel administering the agent was seen as essential, and periodic refresher training was seen as equally important. Yu.P. Smirnov, in 1967, wrote of problems related to anesthesia aboard ship. He strongly recommended increased training of medical personnel by assignment to hospitals for one month of training in anesthesia each year. (20)

The importance of plans for blood replacement, and the presence of equipment for transfusion were also considered to be important to con-

*This method was not sufficiently described in the literature.

Surgical Problem	Procedure	Anesthetic Method and Agent
Acute appendicitis	Appendectomy	Local with premedication, right perinephric block
Acute appendicitis with peritonitis	Appendectomy with drainage of peritoneal cavity	Combined anesthesia, local anesthesia with premedication, plus morphine and scopolamine or alcohol and thiopental
Perforated ulcer	Suturing of ulcer and drainage of abdominal cavity	Premedication alcohol and thiopental, plus local infiltration
Extremity injuries	Surgical repair of wounds	Morphine and scopolamine, intra-osseous anesthesia
Abdominal cavity injuries	Laparotomy	Premedication, alcohol thiopental anesthesia with novocaine or trimecaine solution

siderations regarding anesthesia administration during surgery. (21)

Considerable attention has been paid to the methods and experiences in anesthesia aboard Soviet merchant ships. In a 1970 article, Kalinichenko and Belyavskiy, of the Hospital of the Antarctic Whaling Flotilla "Sovetskaya Ukraine," described 12 years of experience with surgery at sea. One thousand eight hundred three patients required surgery with anesthesia, according to their records; 1,601 were males, and 202 were females. Ages ranged from 20 to 56. The paper discussed methods of anesthesia used and complications of these methods. The conclusions reached were as follows:

- Local anesthesia, by the A.V. Vishnevskiy method, was the preferred and least dangerous method for shipboard use.
- Local anesthesia required skill and the knowledge of anatomy and recommended procedures.
- Other methods might be suitable in some cases, including (in the mer-

chant marine fleet), ether, ether oxide, intravenous methods with intubation. (22)

Shevchenko, Buryan, and Grigoriyev, despite their stated preference for neuroleptanalgesia, omitted that method when they prepared, in 1972, a chart recommending methods for anesthesia in various clinical and surgical conditions. (23) Their proposed selection scheme is shown in chart.

The anesthesia issue is one common to both the Soviet and the U.S. naval medical support units. The plight of the naval surgeon and patient faced with surgery at sea is tied to the availability of a proper anesthetic capability, adequate, and safe.

The bulk of the articles reviewed stated that aboard Soviet ships, regional or local anesthesia were most commonly utilized. However, the paucity of information concerning the nature of the medical departments aboard major combatants, including the new aircraft carriers, makes it impossible to judge the extent of the use of general anes-

thetia or to comment on the qualification of those who administer the anesthetic agents.

Aboard smaller vessels and submarines, the environment in which surgery might be performed was considered generally inadequate for what might be required. There was evidence of a continuing search for a safe, easily administered anesthetic agent which would lend itself to common use aboard small combatants.

The comment that teams of physicians might be formed for special procedures aboard ship revealed planning for constructive use of available resources. Combat, however, would preclude such a method on most occasions.

The comment on bringing support physicians from "the reserve group" suggested, in some instances, the presence of a supporting company of vessels which might provide augmenting personnel.

The recommendation of providing one month training a year in anesthetic administration is similar to the practice currently used for augmenta-

tion of our carrier force. Air wing flight surgeons assigned to duty in wings which deploy aboard carriers currently receive one month of training in anesthesia. This training is administered in a major fleet support hospital by those familiar with the work of the carriers. In this way, it is possible for the surgeons serving aboard carriers to have a degree of anesthesia support beyond what might have been available. Additional anesthetic support may be provided by oral surgeons when they serve aboard carriers.

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Dental Operating Light—A Potential Explosion Hazard

The dental operating light which is commonly in use presents a potential hazard to both the patient and the operator. All personnel utilizing this equipment should be aware of this danger and take every precaution to avoid injury.

A potential injury-inflicting incident recently occurred in a dental operatory where restorative procedures were in progress. During treatment, the light of the dental unit momentarily flickered and then burned out. Within seconds, the bulb in the light exploded with sufficient force to embed shattered pieces of the bulb into the protective plastic shield. In addition, the heat that accompanied the explosion partially burned through the shield in several places. Had the protective shield not been in place, the shattering glass would surely have struck and caused injury to the patient, the dentist, and the dental technician.

This incident clearly illustrates the importance of following the manufacturer's instructions for proper shielding of the dental light.





Surgeons remove toes for transplant to patient's hand.

Microsurgery First at NRMCC Oakland

Betty Beck

During a news-heavy day when a new President of the United States was being inaugurated and the former American hostages were being released in Iran, medical history was quietly being made at NRMCC Oakland, CA.

On the morning of 20 Jan 1981, a team of Navy and civilian microsurgons began the first reported successful transplantation of two toes to the stumps of a patient's thumb and opposable digit. The patient had accidentally severed all fingers of his right hand eight months earlier.

After two hours of preparation, three teams of surgeons began operating at 0830. Before the surgery was completed nearly 15 hours later, about 20 medical personnel were involved. They included eight sur-



Chief Rapp discusses his surgery with RADM Walter M. Lonergan, MC, Commanding Officer at NRMCC Oakland.



Navy Chief Electrician's Mate Deane E. Rapp rests following surgery.

geons, two anesthesiologists, three orthopedic technicians, nurses and operating room corpsmen. The team also included a medical photographer who documented the procedure with still photos, and an audio/visual specialist who recorded the surgery on videotape and relayed film of the intricate microsurgery to two large television monitors. There, the entire team could witness the nearly microscopic suturing of arteries, veins,

and nerves with almost invisible needles.

The surgeons took the big toe of the patient's right foot and replanted it to the site of his severed right thumb. Next they transplanted the second toe from his left foot to replace the little finger of the same right hand. When sensation and movement have been fully restored, the transplantation is expected to allow the man to pick up small objects

in a pinching movement and grip larger objects, such as a water glass.

The patient, Navy Chief Electrician's Mate Deane E. Rapp of the staff of the Commander, Submarine Group Five, San Diego, was observed for about 10 days and then transferred to NRMC San Diego. He is now home recuperating from the surgery that seems to be proceeding normally. The rehabilitation period is expected to be about six months.

Chief Rapp, a decorated 13-year Navy veteran trained for duty aboard nuclear-powered submarines, severed all fingers of his right hand while using a circular saw in his home workshop on 17 May 1980. Although he received prompt medical attention, and civilian surgeons in a southern California hospital labored 12 to 14 hours to replant the digits, their efforts were unsuccessful and it became necessary for the Navy to transfer the chief to an office job in material engineering.

This fall, Navy medical officers at San Diego referred him to NRMC Oakland where microscopic surgery procedures are under development. The chief came to the Bay Area in November for preoperative examination by team leaders CAPT David M. Lichtman, Chief of Orthopedics at the Oakland hospital, and Dr. Harry Buncke, Professor of Plastic Surgery at the University of California's San Francisco Medical Center. Dr. Buncke is a civilian consultant to the Navy hospital and a pioneer in microvascular surgery techniques.

According to Dr. Lichtman, some 15 to 20 transplantations of a big toe to replace a severed thumb have been recorded throughout the world, but as far as can be researched, this is the first case ever where both a big toe replaced a thumb and an additional opposable digit was recreated at the same time.

"He is doing well," Dr. Lichtman said. "I am hopeful that Chief Rapp will be able to return to shipboard duty, climbing ladders and doing the other work that his job entails." □



Early-morning deplaning: Former hostages arrive at Rhein-Main Air Base.

Freed Americans in Good Hands

The return of the 52 American hostages from Iranian captivity on 20 Jan 1981 was undoubtedly one of the most dramatic events in recent years. Their safe release symbolized the end of a 14½-month national nightmare and triggered an outpouring of positive feeling not witnessed since the end of World War II.

Yet with all the patriotism, hysterical celebration, wild emotion, and yellow ribbons, there was concern—concern for the mental well-being of the newly freed Americans. Who can forget those first dark, late-night TV images from Algiers? Who did not sense the excitement, the relief, the disbelief, and even the tension and anxiety of the moment? What would we see as they descended onto the tarmac and into the glare of the lights? Would they all be ambulatory? Would some display overt signs of their ordeal? What stories of mistreatment and deprivation would they tell?

As we would discover in the following days, the conditions of captivity were unequal for the 52. Many had been isolated and a few singled out for unusually harsh and degrading treatment. Yet in those first few days of freedom, we learned that most were already bouncing back from their long confinement, downing hamburgers and shakes, shopping at the base exchange, talking to loved ones via telephone, and some already speaking quite freely to the press of their experiences. One former hostage told reporters that he and his colleagues were determined from the beginning to come home with dignity and with their "brains unscrambled."

From that beginning, on 4 Nov 1979, the Navy played an important role in preparing for the day the Americans would come home. Among the 52, were nine Marines and three Navymen. Three Navy psy-

chiatrists, CAPT N.S. Howard, MC, CAPT R.H. Rahe, MC, and CAPT H.J.T. Sears, MC, joined the Department of State interagency medical team and, as Navy representatives, took responsibility for the Navy Department personnel being held captive and their families.

When the break in the negotiations for the hostages' release seemed imminent, Dr. Howard, Director of Mental Health and Behavioral Science at the Bureau of Medicine and Surgery, Washington, DC, and psychiatry consultant to the Surgeon General, flew ahead to Wiesbaden, West Germany to await the signal that the hostages were, in fact, aboard an Algerian jetliner and airborne. Once that event was confirmed, the other two psychiatrists and the rest of the interagency medical team flew on to the Air Force Hospital in Wiesbaden to await the freed hostages' arrival there.

As the only DOD member of the advance team, Dr. Howard flew to Algiers aboard one of two C-9 Nightingales to pick up the freed Americans. U.S. Navy Medicine spoke with him on 28 Jan 1981, just a few hours after his return from West Germany. Somewhat fatigued, but nevertheless exhilarated by what he had witnessed, Dr. Howard discussed the earliest preparations for the hostages' return, their reception in Algiers and Wiesbaden, the nature of their medical/psychiatric evaluations, and the prognosis for their transition to freedom.

USNM: How long ago did preparations begin for receiving the freed hostages?

Dr. Howard: We began gearing up shortly after the hostages were taken on 4 Nov 1979. Soon afterward, RADM H.A. Sparks, Deputy Surgeon General, appointed me as BUMED

representative to a State Department interagency task force created for medical planning. At that time, we addressed issues which included an assessment of what the stresses might be. We also attempted to gather the collective experiences from similar situations—mainly POW situations and other hostage-taking occurrences as well. Establishing support systems for the families was also a critical priority.

Did the hostages released shortly after the first two weeks enter into those plans?

Yes. We utilized information from these freed hostages and later from Richard Queen to further refine our plans. However, the basic outline for treating the hostages once they were released was pretty much in place within the first two months of captivity. The 13 released earlier went through a basic decompression procedure which we later modified.

Was your basic model the Vietnam POW studies?

That's right, for the most part. This was not typical of most terrorist incidents where captivity has usually been short-term. As time wore on, it became apparent that we were dealing with a situation much more akin to a POW scenario. Consequently, results of the POW studies were heavily considered. We also considered information we could gather from previous terrorist situations, not to mention other situations where isolation-related stresses figure prominently such as our Antarctic program "Operation Deep Freeze."

Besides my own experiences relevant to these areas, we were fortunate to be able to call upon the expertise of the other two Navy medical members of the team. CAPT Richard Rahe was Commanding Officer of the Naval Health Research Center and

the Navy's Center for Prisoner of War Studies, and an internationally recognized expert on stress medicine. He is also a co-developer of the famous Holmes and Rahe Scale. Among other things, Dick and his staff adapted the debriefing protocol used for our Vietnam returnees into a suitable form for use with the freed hostages.

CAPT Jim Sears was well known for his deep involvement in operational psychiatry, including his role in fostering the development of the Navy's unique mental health disaster intervention concept known as the SPRINT (Special Psychiatric Rapid Intervention Team). This is in addition to his extensive hands-on experience in combat psychiatry and participation in our Operation Deep Freeze debriefing program.

You mentioned support systems for the families.

Yes. We had periodic family meetings designed to update the families in terms of both what was transpiring in the negotiations and also what our medical plans were. In addition to that, we wanted an opportunity to see how they were handling their own considerable burden, with an eye toward being helpful to them. We offered the families several home visits. Also, each medical team member was assigned up to four of the returning hostages and, correspondingly, their families.

Is the Navy cooperating with the State Department in treating any of the others?

Each agency is basically responsible for the health care of its own members. However, it's been a cooperative effort with sharing of resources across agency lines.

When were you given the call to move out and did you know you were eventually headed for Algiers?

Around January 15th, we went into a high degree of alert and at that time, I arranged for the other two

team members (CAPTs Sears and Rahe) to fly to Washington from the west coast. By late Saturday, the 17th, it became obvious that things were developing very rapidly. The State Department quickly arranged for me and other members of the advance medical team to fly to Wiesbaden under a veil of secrecy. Beginning on Monday, a small group of us waited almost minute by minute for word that an agreement had been signed and we would head to Algiers. We waited up most of that night. The alert continued into Tuesday and from mid-afternoon, we were sequestered in a special operational control center at the Rhein Main Air Base awaiting further developments, with telephone lines open to Washington and Algiers.

The "go signal" was to be confirmation that the Algerian plane transporting the hostages from Teheran had taken off, or as they put it, "Wheels up in Teheran." That confirmation was also required before the plane carrying the other team members could leave from Andrews [AFB] for Wiesbaden.

Adding to the drama was the fact that the Iranians had apparently not used the airport for night operations since the outbreak of their war with Iraq. We were aware that dusk was approaching in Iran and then its passing. Yet, we all had the feeling that this was it! There would somehow be a night lift-off. Although there was a reported UPI press message, "Hostages Free," during President Reagan's inauguration, it wasn't until around 1900 Central Europe Time that we finally received what we had been waiting for.

When we landed in Algiers, we were ushered into a VIP lounge amidst clicking of cameras [of the Algerian press], where we awaited the hostages' arrival for several hours. We received light refreshments and were courteously treated. Ambassador [Ulric] Haynes and his staff were most helpful. At long last, seeing the freed hostages deplane

Donna Gigliotti, Department of State



Marine Sergeants Kevin Hermening, William Gallegos, and the other former hostages take the bus to Wiesbaden Air Force Hospital . . .

was really quite thrilling. We spoke with the six—I believe it was—Algerian physicians who had examined them the previous day, but they did not share a great deal of specific information with us, indicating that since they had been acting on behalf of their government, they were first obligated to submit their reports to their government. But they did agree—though an interpreter—to share their general observations. Their main contention was that although there might be some indications of mild medical problems, no severe medical or psychiatric symptoms were present, certainly none incident to the captivity.

After the hostages deplaned, the Algerian Government performed a ceremony elsewhere in the airport. The Algerians intended for us to return to our planes and the hostages would join us there. However, we felt



... for an emotional welcome.

ume 72, March 1981

SSGT James R. Pearson, USAF



Navyman, IS1 Duane Gillette packs for home in his Wiesbaden hospital room.

it would be better for them to meet us in the terminal for a brief orientation so we could direct them to the two C-9s.

We were able to join them as they were exiting the ceremony. This may have been the most moving moment of all for me. As the only military member present, I was also the only person on the team in military uniform. Noticing me, several of the hostages ran up and eagerly shook hands as they introduced themselves. One even recognized my name (visible on name tag) because a relative had mentioned me in a letter that had gotten through.

We then got them all aboard, but it took some effort to get everyone seated so we could take off.

What happened on that flight from Algiers? What was the general mood?

Upbeat was the way to describe their mood. Relief. Excitement. A lot

of talking. Lots of questions. A sense of transient and welcome surprise that we, whom they had just met, were so well acquainted with them.

Although we had insisted that there be no alcohol on our C-9s, the Algerians had celebrated by passing out champagne on the flight from Teheran. Some, therefore, were a bit animated, but all looked exhausted. This was not surprising in light of the fact that, in addition to the stress of captivity, most had undergone sleep deprivation for several days prior to their release. Nevertheless, they seemed overjoyed to see us and we them.

A hot meal was served and they were made comfortable. We configured many of the seats so we could sit in groups of four people facing one another to facilitate communication. People were in the aisle talking. Some wandered up to the cockpit. The Air Force crew was superb. They had even arranged for squadron T-shirts as gifts for the freed hostages.

Were there any evidences of depression or withdrawal at this point?

A few seemed to sit off by themselves initially, but in the course of my "rounds," I spoke with each individually and all responded quite well. I would not classify anyone as withdrawn. By and large, it was a most moving and uplifting experience.

After the arrival in Wiesbaden, what was the nature of the treatment they received?

For the first half-day, they were allowed to get acquainted with the hospital and settle in. We then began the more formal schedule. After their physicals were completed, the psychiatric debriefing interviews and testing were begun on the second day.

What about the presence of the press?

No one was prevented from talking

to the press if they wanted to, but they were protected from overstimulation too soon. This was accomplished by closing off the hospital to nonauthorized personnel. It worked very well. The ex-hostages got the chance to go through the initial transition period in a relaxed environment.

To help them catch up on what they'd missed, they had access to cassettes summarizing the news from November 4, 1979 through their release. This was extremely well received and seemed to catalyze a lot of constructive group interaction and expression of feelings. Most seemed to find the TV a very relaxing way to get together, interact with one another, and also learn what happened during their captivity.

I understand the physical exams included a test for certain hormone levels that might indicate chronic exposure to stress.

You're referring to the cortisol tests. We don't have the results of those yet. Cortisol depletion as indicated by low cortisol levels seems to be an indicator of chronic stress. The idea was to use the tests as another means of determining who may have been more severely affected by the stress of captivity. In terms of follow-up, it might indicate who would profit from additional care.

There was an initial report that 12 of the freed hostages were showing signs of severe disturbance.

There was no basis in fact for this figure. The reports you refer to were gross exaggerations and I would say irresponsible. Testimony to the contrary can be found in the fact that the freed hostages departed the USAF Hospital in Wiesbaden for West Point as a group. Neither extended hospitalization nor restriction from reunion with family or participation in subsequent press conferences was considered necessary for any in the group. The evidence thus far is that even those who experienced beatings

and long periods of solitary confinement were coping fairly well and responding to their liberation in a positive way.

What did the psychiatric evaluations consist of?

There were two evaluations. First, a clinical interview was conducted in which we encouraged the subjects to talk about their experiences. This permitted the assessment of each individual's emotional response during their captivity and what symptoms they may have had both in captivity and currently. This is not the standard psychiatric examination and took several hours. The other part consisted of a battery of psychological tests.

Did you see any signs of depression, inability to sleep, flashbacks, etc?

There was some evidence of diffi-

culty sleeping. People emerging from the chronic isolation of captivity often show an aroused state, some commonly attended by sleep impairment. Such was a fairly common phenomenon among this group. It was very difficult for people to get to sleep their first few nights, with improvement thereafter.

In terms of overt evidence of depression, not that much was evident. There was some mood variability and some evidence of what might be termed post-traumatic state. Beyond that, I cannot comment at this time except to say that the overall picture was encouraging.

On the day the hostages were released, there was a great deal of conjecture concerning the long-term effects of their captivity. A psychologist interviewed by one of the networks was very pessimistic. What are the possible consequences of

stress on later appearing conditions such as heart disease, longevity, and recurring psychological problems?

Certainly, if one reviews the results of different POW situations, there is the potential for adjustment problems, post-traumatic stress symptomatology, and other medical sequelae. Critically important is the severity of the captivity experience with those POW groups exposed to the greatest physical, nutritional, and psychological abuse being most at risk. The quality of one's social support system and feeling of being valued would also appear to be quite important. And there are other factors as well. I've heard that there were some self-proclaimed civilian "consultants" who were preaching gloom and doom, but those are not our expectations. As for readjustment kind of phenomena, you can't rule out at this point the possibility of future adjustment difficulties. While

Donna Gigliotti, Department of State



Department of Defense



SGT James Lopez makes a dramatic transition.



Marine Sergeants John McKeel, Kevin Hermening, James Lopez, and William Gallegos at West Point news conference.

there is much to recommend a favorable overall prognosis to date, it's simply too early to speak with certainty. Each situation and each individual is unique.

It has been said that it's unfair to compare the hostages' experience to that of the Vietnam POWs. Our flyers, for example, knew the risks of capture and were at least partially prepared to deal with it. The hostages were essentially civilians unprepared for a fate that came as a complete surprise.

The captivity experience and degree of preparation of people varied. There were, for example, civilians who were quite familiar with the Iranian culture and language for whom such familiarity may have helped. However, I think it's inappropriate to make too many generalizations. One has to realize that the

POWs' stresses were of longer duration and their treatment much more severe. Also, there is evidence that many of the hostages had a fair amount of communication or at least some knowledge of what was going on outside. This cannot be said of the Vietnam POWs, some of whom never received a letter throughout many years of confinement. What I'm really saying is that it may be unwise rather than unfair to draw too many comparisons between the two groups for such may bias one's expectations for the returned hostages excessively toward either optimistic or pessimistic extremes.

Can any parallels be drawn as to long-term recovery?

Although the five-year followup of the Navy POWs certainly documented areas of difficulty, the prognosis for long-term recovery proved

to be excellent on the whole as *U.S. Navy Medicine* has reported in a previous issue. At this juncture, our expectations are optimistic for the freed hostages' long-term adjustment.

What kind of followup is planned for them?

We're mindful of the potential for problems and plan to be available to them and their families.

The ex-hostages received a joyous welcome in Wiesbaden, West Point, and then here in Washington. With such an outpouring of emotion, they must have realized once and for all that they were never forgotten. Do you think the welcome will have any effect in the long run?

It will be remembered by them and the entire nation as probably the greatest national demonstration of

positive feeling since the end of World War II. However, it will be the environments the ex-hostages re-enter, the kind of support they receive on a daily basis, the extent to which they can work and love, as Freud might have said—all will exert a more profound effect in the long run. The desire is to get them back into productive “normal” working and living situations as soon as possible. In the long run, this will mean more than the parades.

Many Vietnam vets and POWs feel shortchanged not having been welcomed back home as heroes. Many were pretty much left to themselves to readjust. Might they have benefited from an equal display of public acclaim?

This again is a personal view, but I think they would benefit more from the kinds of things that go on in their everyday lives which makes them feel more or less valued by society. Mass demonstrations have both positive and negative effects. Many people feel the pain of overstimulation that comes from a celebrity status. The best example of this in recent history is Mother Theresa when she won the Nobel Peace Prize. When she was interviewed regarding her response to becoming an instant celebrity, she said it was quite painful. As a group, the freed hostages have not regarded themselves as heroes. Some public demonstration of affection is good, and I think the Washington celebration and the White House ceremony [27 January] were nicely balanced. However, if public celebration goes on for a prolonged period, a distorted sense of identity can be expected.

This leads to an interesting point. In a sense, the parades and demonstrations are not really for the returned hostages at all. Many others have been taken prisoner of war or hostage and have come home to little fanfare. In this case, our Americans held hostage in Iran became a symbol of an American public which felt captive and helpless. It was, therefore, what

they symbolized that triggered the response. The public was not saying “We love you” as much as “We love what your perseverance and freedom represent.” With the Vietnam veteran, it was the fact that the struggle they were involved in became stigmatized in our society. That not only tainted their initial reception but, tragically for many, their long-term reception and feeling of self-worth as well. One can only hope that today’s public celebration of the hostages’ freedom will help focus appropriate

attention on the plight of Vietnam veterans.

You said at one point that your experience with the hostages was one of the most memorable of your life.

I’d like to say that I feel enormously privileged to have participated in the events about which we’ve spoken. In this regard, I know I am also expressing the sentiments of the other members of the Navy team as well as the interagency team as a whole. —JKH □

HM2 James Parmenter, USN



Dr. Howard

The Dyslexic Disorder

LT Jerry L. Brittain, MSC, USNR

For years, syphilis was often called "the great imitator" because its symptoms often mimic many other diseases and because it affected so many different body systems. A similar situation exists in dyslexia, a common form of learning difficulty. Learning disabilities, as a distinct diagnostic group were only recognized as a separate entity in the early to middle 1960s. They continue to be clouded in controversy and have alternately been misdiagnosed as everything from mental retardation to part of a passive-aggressive personality.

With an increasing awareness of how widespread the disorder is, it has become more and more important for all health care providers to be aware of some of the more common facets of the disorder.

Just how important this is was dramatically brought to me recently. About a year ago, I did an inservice presentation on dyslexia at NRMC San Diego. Since that time, I have received several calls for consultation from area physicians, psychologists, students, and educators. The most memorable incident was a consultation concerning a second class petty officer who had some 18 years of active duty. He had a good work record, but was being threatened with an administrative discharge since he was repeatedly unable to pass his exam to become a first class. My interview and testing revealed that he had a severe case of dyslexia, with a reading ability slightly above the second grade. I contacted an area university that had free remedial education courses for just such cases. Here was a hard-working, career-oriented sailor who might have been separated from the Navy because of his specific learning problem. Luckily, the case was referred for proper evaluation.

The following general review of the disorder is presented in hopes of sensitizing other health care providers to a syndrome that is all too frequently missed or misdiagnosed.

The specific reading disability, developmental dyslexia or strephosymbolia, was first described independently by at least three writers in the latter decades of the 19th century. (7,8,11) The disability was characterized by retarded reading skills despite adequate educational opportunities. It was Kussmaul in 1877 who first used the

term "word blindness" to describe patients, who, although not blind, were yet unable to read letters or words. (8) About this same time, two British physicians, working independently, described the disorder. One was Dr. James Kerr. (7) The more explicit account was by Dr. Pringle Morgan in 1896. (11) The patient Morgan described was a 14-year-old intelligent boy who read numbers fluently but could not recognize printed words no matter how often they were presented to him. His memory and his understanding of auditory material proved to be good.

After 1896, a steady trickle of case reports appeared in the literature, and dyslexia became well established in the corpus-neurology. The major name in the literature was that of Dr. Samuel Orton. (14) He, like Pringle Morgan, was alerted to the disorder by a boy whose handwriting was illegible and who could not read printed matter despite adequate educational opportunities. Further search led to his finding many more such children who were conspicuous by reason of their difficulties in learning to read or spell. He believed the disorder was one of laterospatial disorientation. Because of this, he chose to call the disorder "strephosymbolia," literally meaning "twisted symbols." It was Orton who produced the literature's first clearcut manifestation of the disorder's symptoms in his seminal 1937 work, *Reading, Writing, and Speech Problems in Children*. (14) Research since that time has given additional information on the symptoms Orton listed and has shown the presence of other, additional symptoms.

The fact that the disorder tends to occur frequently in families was cited as early in the literature as 1905 by Thomas. In 1950, Hallgren published a study on dyslexics drawn from the Child Guidance Clinic in Stockholm and a secondary school that had special classes for "intelligent" dyslexic children. His investigation centered on all the parents and siblings of the dyslexic child. He reported that 88 percent of those studied had one or more members of the immediate family with a history of dyslexia. (13) Hansen did a similar study at the Copenhagen Word Blind Institute, concluding that in 63 percent of the cases, the dyslexia was of genetic origin. (5) Two studies of twins are also reported in the literature. In his 1950 publication, Hallgren also reported on 12 sets of monozygotic twins where dyslexia was present. He found a 100 percent concordance rate for the dis-

Dr. Brittain is a clinical psychologist currently stationed at the Navy Drug Rehabilitation Center, NAS Miramar, CA 92145.

order. (13) In 1939, Norrie had reported his study of 33 sets of dizygotic twins where dyslexia was present. He found a 33 percent concordance rate for dyslexia. (13)

Just as the disorder seems to occur more frequently in certain families, it also seems to be primarily a male phenomenon. There is general agreement in the literature that the disorder occurs at least five times more frequently in males than in females. (6,12) Many writers and researchers contend that the ratio would extend as high as 15 males to every female. (17)

Memory, in its many dimensions, is affected in various ways in children with learning disabilities. In the dyslexic population, the auditory memory involvement is found to predominate more than visual memory in repeated studies. (1) Another memory deficit many dyslexic children have is their difficulty or inability to learn a series such as the days of the week, months of the year, and the alphabet. Even after many of them are able to repeat such a series, they may be unable to use the terms meaningfully. Such a child cannot tell what day or month follows or precedes another. (4)

Dyslexics share a characteristic of many children with learning disabilities in that they are often unable to orient themselves in space and to learn to distinguish right from left, either on their own body, or when looking at another person. (This suggests that the child, when reading, may also have trouble keeping letters and words in order.) Many also experience difficulty learning directions on maps, globes, and in their surrounding environments. (2,13,17)

There are varying opinions regarding the importance of laterality symptoms in the dyslexic child. McFie is one of a small group of writers who attach minimal importance to the appearance of such a symptom in the disorder. (9) Others attach a great deal of importance to such a symptom's presence. Orton probably attaches the most significance to its presence, making it a cornerstone in his theory of the disorder. (14) Zangwill found that in 20 cases of dyslexia he studied, only four cases showed no ambiguous laterality in either themselves or their families. (18) Hagger also found confusion of laterality to be present in higher than average numbers in the dyslexic population he studied. He, like others, also found a higher than average incidence of left-handedness and a tendency toward delayed selection of the hand of preference in many dyslexics. (13)

Dyslexic children do not exhibit obvious motor disorders, nor are they significantly retarded in sitting or walking age. However, when motor tests are administered, they fall below average as a group, particularly on

tests of locomotor coordination. Many parents also report a greater amount of clumsiness and awkwardness as compared with other members of the same family. (6,17)

Many dyslexics also experience difficulty in the use of numerical symbols. The symptoms may vary from child to child as do most of the other symptoms. In many dyslexic children, there are problems of reasoning and conceptualization. In others, there are problems in remembering how numbers look or the basic arithmetic facts. Memory problems relating to their inability to remember or understand series or sequences prevent many dyslexics from being able to work problems. Others are able to do well on calculation but are unable to read and are therefore unable to do the reasoning problems. (6)

The impact of a reading disorder on writing is marked. If such a child cannot read or incorrectly perceives what he sees, he cannot use the verbal symbols required for written expression of what he has read. Symptomatically, this appears as difficulty in spelling and production of written material. Typical manifestations include word reversals, omission of letters or word endings, and distortion of the sequence of letters within words. In addition to spelling problems, most dyslexics have difficulty with written language. They have problems expressing ideas with good syntax, in sequence, and with good sentence structure. (13,15)

Despite the fact that most dyslexics have good intelligence and integrity in many areas of their behavior, many are below average in their social maturity. The learning disability affects more than academic achievement and interferes with the overall social competence of the child so afflicted. Failure by the child to achieve normal social maturity, however, is related to more than just a reading disability. Many dyslexics often have additional disorders that affect the person's ability to care for themselves and to compete on a meaningful level with their peers. While some individuals do learn to compensate for their disability, many others do not. (13)

The preceding symptoms are among the more commonly recognized facets of the disorder. What makes recognition or diagnosis of the disorder so difficult is that, unlike almost any other psychiatric or neurological disorder, it is not pathognomic. There is no single symptom or group of symptoms that are specifically diagnostic of the disorder. This is perhaps best summarized by McLeod who wrote: "Among backward readers then is a 'group,' the members of which do not all exhibit exactly the same symptoms, while the symptoms which they do exhibit and which help to identify them as

members of the group, are symptoms that can occur in other disabilities and indeed in normal children." (10)

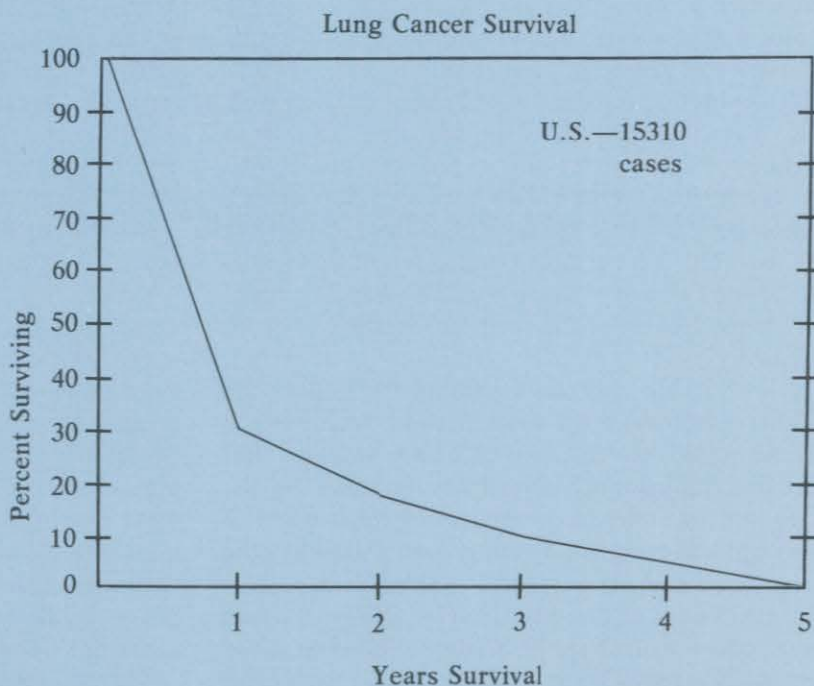
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Cancer Statistics Grim

Public health workers have scratched their heads for years over unchanging cigarette smoking trends in the face of irrefutable evidence that smoking is the greatest single cause of preventable disease and death in the developed world. The significant decline in cigarette smoking among physicians points to the belief that doctors know something others do not.

A recent article in the American Cancer Society's magazine, *CA*,* may provide an important key as to why smokers persist in their habit. In a survey of 1,553 men and women (smokers and non-smokers), some interesting attitudes were discovered. The large majority of persons queried believe that smoking is a major cause of cancer. Among current smokers, 52 percent think they are "very likely" or "fairly likely" to develop lung cancer. The surprising (and disturbing) finding is that 70 percent of these same people



think that if they developed lung cancer, it could be cured.

All evidence is quite to the contrary! As illustrated by the graph below, national data show that survival experience with lung cancer is less than 30 percent at 12 months after diagnosis and that it drops below 10 percent at five

years, making lung cancer one of the most lethal tumors in man (worse than breast, colon, uterus, ovary, stomach, kidney, melanoma, Hodgkin's disease, or leukemia).

—Adapted from *Colorado Disease Bulletin*, May 3, 1980

*CA—A Cancer Journal for Clinicians. 1980, 30:92-98.

Notes & Announcements

IN MEMORIAM

CAPT *Willard C. Calkins*, MSC, USN (Ret.), former Health Care Administrator, died 31 Jan 1981.

Born 30 Sept 1902 in New Haven, CT, CAPT Calkins enlisted in the Navy 27 April 1919. He was appointed Hospital Corps Warrant Officer 1 Oct 1929 and promoted to captain in the Medical Service Corps 24 Sept 1954. CAPT Calkins became the first Chief of the Medical Service Corps 1 Oct 1954 and served in this capacity until he retired from active duty on 1 Oct 1958.

CDR *James T. Dalton*, MSC, USN, former Health Care Administrator, died 10 Feb 1981.

Born 1 Dec 1937 in Salina, KS, CDR Dalton enlisted in the Navy 1 Aug 1958. He was appointed ensign in the Medical Service Corps 1 Dec 1964 and promoted to commander 1 Aug 1979.

CDR Dalton served as Executive Assistant to the Assistant Secretary of Defense for Health Affairs, Washington, DC, from June 1977 until the time of his death.

ENVIRONMENTAL TRAUMA SYMPOSIUM

The Naval Reserve Readiness Command, Region 19 and NRMCLong Beach, CA, will sponsor an Environmental Trauma Symposium 9 May 1981. Timely topics will be presented by noted experts in their fields.

For further information, contact: Continuing Medical Education Department, NRMCLong Beach, CA 90822. Telephone: Autovon 873-9285, Commercial (213) 420-5285.

ADDITION TO ROSTER

A roster of key Medical Department personnel at major Navy installations was published in *U.S. Navy Medicine*, December 1980. The Military Sealift Command should be added to the list.

COMSC FS CAPT B.R. Blais, MC, USN (ADDU)
AA LCDR P. Reed, MSC, USN
MSCLANT . . . FMO CAPT E. Reed, MC, USN
MSCPAC FMO CAPT D. Peace, MC, USN

SCIENTIFIC EXPERIMENTS

The Massachusetts Institute of Technology will offer a course in Design and Analysis of Scientific Experiments 22-27 June 1981.

Applications will be made to the physical, chemical, biological, medical, engineering, and industrial sciences,

and to experimentation in psychology and economics.

Further information may be obtained by writing to: Director of the Summer Session, Room E19-356, Massachusetts Institute of Technology, Cambridge, MA 02139.

NAVAL EXHIBIT

The USS *Constitution* Museum in Charlestown, MA, will have an exhibit of early New England naval medicine beginning 30 May 1981. The exhibit will comprise accounts of a naval surgeon's life before and during the battle of August 1812, of the development of naval hospitals locally, and of the role of hospital ships. It is expected that 70,000 visitors will see the exhibit.

PIERRE FAUCHARD AWARD

Three dental officers from NRDC Pearl Harbor, HI, received the Pierre Fauchard Table Clinic Award for excellence at the XVIII Pan-Pacific Conference and 78th Annual Scientific Session of the Pacific Dental Federation and the Hawaii Dental Association held at the Sheraton-Waikiki Hotel, Honolulu, HI, 11-15 Jan 1981.

Honored were LTs William B. Paulin, Terrence L. Allemang, and William C. Roddy. Their presentation entitled *Variance of the Mandibular Canal and Its Anesthetic Considerations* was chosen among 47 table clinics exhibited at the session.

ULCER RESEARCH

Peptic ulcers—a disease which now affects some 10 million Americans—is the subject of a new Veterans Administration publication, the first in an educational series for lay readers interested in medical research.

The 10-page pamphlet focuses on the work of Morton I. Grossman, M.D., Ph.D., a nationally recognized expert in the treatment of ulcers. In discussing current research accomplishments in unraveling the causes and developing treatments for peptic ulcer disease, the publication highlights Dr. Grossman's 26-year career in VA-supported research. He now works at the VA Medical Center, Wadsworth, CA.

One of nine senior medical investigators among the agency's 4,000 scientists involved in some 5,500 individual projects, Dr. Grossman is also Director of the Center for Ulcer Research and Education in Los Angeles.

The new VA series is entitled *Focus: VA Research and Development*. Copies of the first issue may be obtained by writing to Dr. Robert E. Allen (151F), 810 Vermont Avenue, NW, Washington, DC 20420.

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